



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/004,001	11/01/2001	Wen Zhao	555255012288	7436

7590

11/03/2006

Joseph M. Sauer, Esq.
Jones, Day, Reavis & Pogue
North Point
901 Lakeside Avenue
Cleveland, OH 44114

EXAMINER

PHAM, TUAN

ART UNIT

PAPER NUMBER

2618

DATE MAILED: 11/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/004,001	ZHAO ET AL.	
	Examiner	Art Unit	
	TUAN A. PHAM	2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10/6/2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 42-55 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 42-53 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 54-55 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/06/2006 has been entered.

Election/Restrictions

2. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).
3. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 42-53 are drawn to keypad of telephone, classified in class 379, subclass 433.07.
 - II. Claims 54-55 are drawn to voice recognition unit, classified in class 379, subclass 88.01.

4. Inventions I and II are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because the invention I is concerned with the keypad of the telephone device. The subcombination has separate utility such as the invention II in which it is concerned with a method for converting the voice signal into the DTMF signal.

5. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

6. Because these inventions are distinct for the reasons given above and the search required for Group I is not required for Group II, restriction for examination purposes as indicated is proper.

7. During a telephone conversation with Joseph M. Sauer on 10/30/2006 a provisional election was made without traverse to prosecute the invention of group I, claims 42-53. Affirmation of this election must be made by applicant in replying to this Office action. Claims 54-55 withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

9. **Claims 42-44, and 46-50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Public Application (Nokia user's manual 900i 06/07/1998, hereinafter, "PA") in view of Nishimoto (Patent No.: US 6,046,732).**

Regarding claim 42, PA teaches a communication device comprising (see figure 2-11, page 2-10):

a keyboard having at least twenty six keys that are each labeled with a different letter of the alphabet and number and configured to generate an output signal (see figure 2-11, page 2-10);

a processor for converting the output signal into a character code (see page 3-2,

Art Unit: 2618

it is obvious that the PDA should be including a processor for converting a signal to character code when the user using the text);

means for converting the output signal into a telephony tone signal (see page 3-2, 4-5, it is obvious that the PDA should be including a processor for converting a signal to telephone tone when the user dial the number, DTMF);

software applications stored by the communication device and executed by the processor (see page 2-8), and

a keyboard mode control software module that automatically controls whether the keyboard output signals from the keys are converted into character codes or telephony tone signals based on which of the plurality of software applications is active (see figure 2-11, the keyboard as shown in figure 2-11 is store plurality of applications to support multiple mode, each mode is associated with different software application. When the user select the telephone mode from the keyboard, the controller automatically run on the telephone software application, and when the user select the calculator mode, the controller automatically run on calculator software application, page 2-8, 2-10, 2-11).

It should be noticed that PA fails to teach each key are associated with number and letter. However, Nishimoto teaches such features (see figure 11, keypad 108, each key is associated with letter and number, it is obvious that the manufacture can be arrange the 26 letters key associated with each number from 0-9).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Nishimoto into view of PA in order to save cost and make a device to support a plurality functions.

Regarding claim 43, Nishimoto further teaches the numbers 2-9 are assigned respectively to letters A-C, D-F, G-I, J-L, M-O, P-S, T-V and W-Z (see figure 9).

Regarding claim 44, PA further teaches QWERTY keyboard (see figure 2-11).

Regarding claim 46, PA further teaches a mode key with which a user can switch conversion of the output signals from telephony signals to character codes (see figure 2-11, application button 1, page 2-10, the user can press the application button 1 to select the mode).

Regarding claim 47, PA teaches a communication device comprising (see figure 2-11, page 2-10):

a keyboard having at least twenty six keys that are each labeled with a different letter of the alphabet and number (see figure 2-11, page 2-10).

It should be noticed that PA fails to teach each key are associated with number and letter, and means for generating, for each key pressed by a user, a telephony tone signal corresponding to the number assigned to the pressed key. However, Nishimoto teaches such features (see figure 11, keypad 108, each key is associated with letter and number, it is obvious that the manufacture can be arrange the 26 letters key associated with each number. When the user want to make a call, they just press the number then the number will convert to DTMF signal to generate the tone).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Nishimoto into view of PA in order to save cost and make a device to support a plurality functions.

Regarding claim 48, Nishimoto further teaches the numbers 2-9 are assigned respectively to letters A-C, D-F, G-I, J-L, M-O, P-S, T-V and W-Z (see figure 9).

Regarding claim 49, PA further teaches QWERTY keyboard (see figure 2-11).

Regarding claim 50, Nishimoto further teaches each key is labeled with its assigned number (see figure 11).

10. Claims 51-53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nishimoto (Patent No.: US 6,046,732) in view of Engelke et al. (U.S. Patent No.: 5,581,593, hereinafter, "Engelke").

Regarding claim 51, Nishimoto teaches a communication device including (see figure 11, mobile phone):

each of the letters being assigned a number in the range 0-9 (see figure 11, keypad 108, each key is associated with letter and number, it is obvious that the manufacture can be arrange the 26 letters key associated with each number), and

the device being operative, for each letter pressed by a user, to communicate the number assigned to the pressed letter (see figure 11, col.2, ln.26-44, it is obvious that when the user press the key including letter and number that key will associate with letter or number).

It should be noticed that Nishimoto fails to teach a keyboard with letters arranged in a QWERTY configuration. However, Engelke teaches such features (see figure 1, key board 22, col.4, ln.6).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Engelke into view of Nishimoto in order to save cost and make a device to support a plurality functions.

Regarding claim 52, Nishimoto further teaches the numbers 2-9 are assigned respectively to letters A-C, D-F, G-I, J-L, M-O, P-S, T-V and W-Z (see figure 9).

Regarding claim 53, Nishimoto further teaches the communicating of the numbers is through telephony tone signals (see figure 9, when dialing a phone call).

11. Claim 45 is rejected under 35 U.S.C. 103(a) as being unpatentable over Public Application (Nokia user's manual 900i 06/07/1998, hereinafter, "PA") in view of Nishimoto (Patent No.: US 6,046,732) as applied to claim 42 above, and further in view of Hidaka (US patent No.: 6,081,548).

Regarding claim 45, PA and Nishimoto, in combination, fails to teach display the character codes. However, Hidaka teaches such features (see col.2, ln.45-55).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Hidaka into view of PA and Nishimoto in order to convert the letter to the ascii for use in the telephone system.

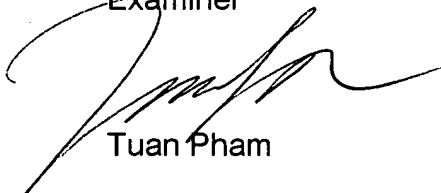
Conclusion

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan A. Pham whose telephone number is (571) 272-8097. The examiner can normally be reached on Monday through Friday, 8:30 AM-5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Anderson can be reached on (571) 272-4177. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

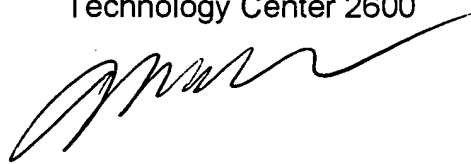
Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have question on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Art Unit 2618
October 30, 2006
Examiner



Tuan Pham

Supervisory Patent Examiner
Technology Center 2600



Matthew Anderson